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A New Colubrid Snake of the Genus *Stegonotus* from Borneo

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Two specimens of *Stegonotus* are now known from Borneo, one from Mount Kina Balu (6°03′N, 116°32′E), Sabah, and one from Nanga Tekalit (1°38′N, 113°35′E), Sarawak. The skull of the latter specimen agrees with the description (Duméril and Bibron, 1854, p. 681) of the skull of *S. muelleri*, the type species. The parietal is very broad and flat with a weak median crest immediately before the supraoccipitals. The maxilla is only slightly curved and lacks a diastema; the maxillary teeth increase in size to the middle of the row, then decrease, and finally after a very short interval increase sharply at the end of the row. The palato-pterygoidal tooth row contains 49 teeth (17+32); Duméril and Bibron counted 47 (19+28). The head is slightly wider than the neck. The eyes are small and have vertically elliptic pupils. The dorsal scales are smooth and the ventrals angulate laterally. The only character in which they differ from the diagnosis of *Stegonotus* presented by Boulenger (1893) is in the absence of apical pits on the dorsal scales. In this regard, however, they resemble the type species *S. muelleri*.

The Kina Balu snake has been considered to be conspecific with the Philippine species, *S. muelleri* (Leviton, 1963). The Bornean snakes are, indeed, very similar to the Philippine form (six examined), but differ in a number of ways. As the Bornean specimens were collected in different years (1951, 1963) and from localities 560 km. apart, differences between them, on the one hand, and the Philippine snakes, on the other, are not the result of peculiarities of one brood or one extremely local population.

The ventral coloration of the Bornean snakes is homogeneous throughout the length of the body. The anterior half or three-

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FIG. 1. Dorsal view of head of holotype (FMNH 164746) of *Stegonotus borneensis*.

fourths of each ventral is black or purplish and the posterior portion whitish. All of the Philippine snakes have whitish, unmarked ventrals in the anterior half of the body. The posterior half of the belly is uniformly black or black with white bands three to six ventrals wide.

The shapes and relative sizes of many head scales of the Bornean snakes differ from those of Philippine snakes (Table 1). The Bornean specimens have relatively shorter internasal sutures, wider frontals, shorter lower anterior temporals, and probably more squarish loreals. Not shown in Table 1 is a difference in lengths of the second chin shield, which in Philippine snakes is at least equal to the distance separating the parietal from the mouth but is shorter than that distance in the Bornean snakes.

There are also minor differences in supralabial counts (Table 2). The ventral counts (Table 2) of the Bornean snakes approach those of the Philippine snakes but the known ranges do not overlap. Subcaudal counts of the two samples may differ, but the evidence is weak. Both Bornean snakes have four rows of gulars on each side of the midline immediately behind the chin shields. Five of the Philippine snakes have three rows on each side; the sixth specimen, from Mindanao, has three rows on one side and four on the other.

TABLE 1.—Comparison of shape and relative sizes of head scales in *Stegonotus* from Borneo (*S. borneensis*) and the Philippine Islands (*S. muelleri*). All measurements are in micrometer units (6 units=1.0 mm.).

	Borneo		Mindanao	Samar		Leyte		
	USNM 130244	FMNH 164746	FMNH 53453	USNM 122203	USNM 122204	USNM 121607	FMNH 42795	FMNH 42851
Internasal suture	8	7	18	16	15	16	11	16
Prefrontal suture	24	27	37	35	32	40	22	35
Intern./prefr.	0.33	0.26	0.49	0.46	0.47	0.40	0.50	0.46
Frontal width	36	34	45	52	42	55	30	55
Frontal length	28	30	47	51	43	55	32	56
Frontal l/w	0.78	0.88	1.04	0.98	1.03	1.00	1.06	1.02
Loreal depth	7	7	10	14	11	14	8	15
Loreal length	11	8	21	22	18	22	13	22
Loreal d/l	0.64	0.88	0.48	0.64	0.61	0.64	0.62	0.68
Length of anterior temporals								
upper	30	26	37	44	40	32	21	33
lower	15	17	43	42	37	30	24	45
lower/upper	0.50	0.65	1.16	0.95	0.92	0.94	1.14	1.31

TABLE 2.—Comparison of counts in *Stegonotus* from Borneo (*S. borneensis*) and the Philippine Islands (*S. muelleri*).

	Borneo		Mindanao	Samar		Leyte		
	USNM 130244	FMNH 164746	FMNH 53453	USNM 122203	USNM 122204	USNM 121607	FMNH 42795	FMNH 42851
Sex	♀	♀	♀	♂	♀	♂	♂	♂
Snout-vent (mm.)	910	783	1253	1320	1120	1400	720	1457
Scale rows	21–17–15	21–17–15	21–17–15	21–17–15	21–17–15	21–17–15	21–17–15	19–17–15
Ventrals	219+1	194+1	222+1	232+1	222+1	231+1	231+1	227+1
Subcaudals	61+	79	80+	84+	76+	97	99	81+
Labials, upper	9	9	8	8	8	8	—	8
Labials, lower	9	10	9	10	10	10	—	9
Oculars	2–2	2–2	2–2	2–2	2–2	2–3	2–2	2–2
Temporals	2–3	2–3	2–3	2–3	2–3	2–3	2–3	2–3
Maxillary teeth	13+2	14/15+3	14+3	—	15+2	15+2	14+2	14+2

TABLE 3.—Comparison of three forms of *Stegonotus*.

Range	*dumerili* Philippines	*muelleri* Philippines	*borneensis* Borneo
No. examined	6[1]	6	2
Upper labials	8–9	8	9
Lower labials	9	9–10	9–10
Oculars	2+2	2+2	2+2
Temporals	2+3	2+3	2+3
Scale rows			
on neck	19	21	21
mid-body	17	17	17
Ventrals			
females	195–214(4)	222(2)	194–219(2)
males	210–215(2)	227–232(4)	—
Subcaudals			
females	112–118(4)	80+(2)	79(1)
males	114–123(2)	97–99(2)	—
Maxillary teeth	10±3	14–15+2–3	13–15+2–3
Frontal shield			
width: length	W<L	W<L	W<L
Anterior temporals			
lower: upper	L<U	L=U	L<U
Vertebral scales	normal	normal	enlarged

[1] Only two were examined. Data on three females and one male from Boulenger (1893).

The vertebral scales are markedly enlarged and truncate in one Bornean snake (FMNH 164746)[1] and less conspicuously enlarged in the second specimen (USNM 130244).[2] The vertebral scales do not differ from adjacent scales in the Philippine sample.

Granted that the Bornean and Philippine populations differ, how are these differences to be interpreted? Are these allopatric populations representatives of two distinct species or are they merely geographic races of a single species? One other species of *Stegonotus*, *S. dumerili*, occurs in the Philippine Islands. It differs from *muelleri* in subcaudal counts, in ventral counts, in number of scale rows on the neck, in maxillary tooth counts, and possibly in coloration (Table 3).[3] Thus *S. dumerili* differs from *S. muelleri*, with which it is sympatric, to about the same extent as the latter does from the Bornean snakes. I am, therefore, designating the Bornean population as a distinct spe-

[1] FMNH=Field Museum of Natural History.

[2] USNM=United States National Museum.

[3] Only small specimens of *dumerili* are known.